Particles of 30nm or greater can remain suspended in the air. It is unknown how long a norovirus particle (27-35nm) can remain suspended in the air. While probably not very long, it is enough of a question and epidemiologic risk to consider the recommendation of using a facemask (Droplet precautions) and gown and gloves (Standard precautions) for care of a person with norovirus. While norovirus is transmitted fecal- oral, vomitus-oral, the virulence of this pathogen in persistence in the environment and is difficult to control in outbreaks makes this recommendation prudent.

Suggest: for Key question 1
The recommendation offered here is that droplet precautions be used, a face mask **with a shield** at all times within 3-6 feet of the patient. Routine Contact precautions seem unreasonable except as stated in the recommendations for an outbreak/cluster situation.
I
Visitors should also don a mask, gown and gloves at all times until 48 hours after symptoms cease.

Section Page 17 IV Recommendations for Further Research
Suggest: Propose outbreak studies that do not include environmental sampling.

Section 3
Suggest:
Include in the current recommendations, when environmental sampling if ever would be beneficial, suggested or highly recommended.

Section Page 41 Q3 Recommendations
Suggest "Q3 E Recommendations"

Section Table of Contents
Suggest

VII Evidence Review and Recommendations page28
Question 1 What person, virus or environmental characteristics increase or decrease the risk of norovirus infection in healthcare settings?
Question 2 What are the best methods to identify a norovirus outbreak in a health care setting?
Question 3 What interventions best prevent or contain norovirus outbreaks in the healthcare setting?

IX Appendices

Comments for Draft Guideline for the Prevention and Control of Norovirus Gastroenteritis Outbreaks in Healthcare Settings
Federal Register due July 16, 2010

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Key question 1 What person, virus or environmental characteristics increase or decrease the risk of norovirus infection in healthcare settings?
1. Section 1. A. 1 "Avoid exposure of vomitus or diarrhea. For a recognized outbreak, use contact precautions for patients with symptoms consistent with norovirus gastroenteritis. Sporadic cases can be managed under Standard Precautions with provision to reduce staff, visitor, and patient exposures to vomitus or diarrhea."

This implies that there is constant monitoring by senior nursing staff or infection control staff to increase the precautions as needed. It may be a standard but it puts the HCW at risk to rely on others to determine when to change precautions.

2. Section 3. C.2 a "use a surgical or procedure mask, and eye protection if there is a risk of splashes to the face during the care of patients, particularly among those who are vomiting."
Standard precautions rely on worker judgment in the event of exposure to donn PPE. Norovirus can be aerosolized in vomit and the data in the document support at least twice the risk of illness for persons exposed to vomit. (Reference page 30 Q1.c4 Proximity to infected persons). "Eight observational studies found statistically significant factors that elevate the risk of infection such as proximate exposure to an infected source within households or in crowded quarters increased infection risk, as did exposures to any or frequent vomiting episodes. These data suggest person-to-person transmission is dependent on close or direct contact as well as shorter-range aerosol exposures. "

Standard precautions work when the vomiting is in progress or just after vomiting, but there is a risk for the health care worker (HCW) who goes in to care for a vomiting patient, clean a toilet, sink or area soiled with or without vomit, but it is unknown when the vomiting occurred. Visually it is present, but aerosolization may or may not be present. The risk that a health care worker (HCW) touches the virus or has the virus on mucus membranes is possible.